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Art Unit 1755

IN THE UNITED STATES PATER AND TRADEMARK OFFICE

Application of Van De Mark, et al. Serial No. 09/532,839
Filed March 21, 2000
For WATER BORNE FILM-FOR

WATER BORNE FILM-FORMING COMPOSITIONS

Examiner Paul R. Michl

March 22, 2002

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TO 1700

DECLARATION OF PRIOR INVENTION UNDER 37 C.F.R. § 1.131

- I, Michael R. Van De Mark, declare as follows:
- I am a co-inventor of the subject matter claimed in the above-entitled
 United States patent application, Serial Number 09/532,839. Since January 1, 1986, I
 have been an Associate Professor of Chemistry at the University of Missouri Rolla
- 2. Nantana Jiratumnukul, a former graduate student of the University of Missouri Rolla, and I are named as co-inventors of the invention claimed in the above-identified patent application. We conceived and reduced to practice the invention claimed in this application in the United States before July, 1996.
 - 3. All work referred to herein was carried out in the United States.
- 4. Evidence of our conception and reduction to practice appears in Exhibit A which is attached to this declaration. On information and belief, Exhibit A is a true and correct copy of two pages of a laboratory notebook maintained by Nantana Jiratumnukul who, at the time, was working under my direction and supervision. The work described on these two pages was carried out prior to July, 1996. Although the dates which appear on the originals of each these two pages were covered when the attached photocopies were made; each page bears a date prior to July, 1996. The first

page of Exhibit A (which bears page number 151) identifies a master batch for a paint formulation which contains PG (propylene glycol), water, surfactant, resin and a pH modifier which were mixed together before a coalescent aid was added. The stated objective was to compare "Cpd X" against the benchmark coalescent aid, Texanol. "Cpd X" was identified on the page to be ethylene glycol soyoil derivative. The second page of Exhibit A (which bears page number 149) describes the preparation of two paint formulations, each of which contained "Cpd X," i.e., ethylene glycol soyoil derivative. The other components of these paint formulations are as follows: water, PG (propylene glycol), triton X-100 (a surfactant), triton X-102 (a surfactant), AMP-95 (a pH modifier), Rhoplex 1018 (a resin), Drewplus 493 (a defoamer), ethylene glycol monobutyl ether. As such, Exhibit A evidences our conception and reduction to practice of the invention claimed in the application prior to July, 1996.

- 5. I was not aware of Bumanlag U.S. Patent No. 5,753,742, Rauls US Patent No. 6,156,833, or Saam U.S. Patent No. 6,177,510 prior to the filing of this application.
- 6. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Michael R. Van De Mark

Date

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:		40 mix together as menta BADE then weigh and add coalerer on
		surfactorit
		team
		et modifier
		Objective compare our cpd by benchmark = Texamol
		(y).
	,	Toronal cpd x (our cpd) EB (ethylene styro) nonobabyl ether)
		10.7. 8.7. 15
		17. 67. 10
: '		12% 4% 5 86-
!		Cpd X (our cpd) is Ethylene glycol soyoil derivative
		Cpd X (our cpd) is Ethylene glycol soyoil derivative MFFT PLOT PINZ EBCY) Texmul X+y MCpd A7. 5 RECEIVEL APR 0 3 2002 TC 1700
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2/18/96	Formulation
2/10/18	1bs Result from drawn down.
 	
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	AMP TO 40 Girmfours X 17 game trady and crace might be be cause gold was gut too me
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replace	
thetexandia.c.	Cpd x 5.0
<u> </u>	HO. 100.18 Cally - 0 - eng - Cng - OH. (increase hydrogeneous light)
	7.4 - 2 - 3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
	After mixing all the components, left the point areanight before drawing (by 3) in
	The results from drawn-down was that there were some cratering and the
<u> </u>	of paint was not wet on the tranetta paper
	After the formulation was left for 2 days, the drawn down had been taken again
	were remain some crokering withough this time it was better than before (1"d
<u> </u>	The problem might be the surfactant used & So, the wetting agent Zonyl APC
	Du Pont was added about 5 drops, After making zonyl APC into the formulation
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	the crotering problem alst. Since tough is very expensive. Thus, we trig to he proper our tectout which has higher or lower HLB than tintron x-102 to in
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PAINT/COATINGS
tings and DICTIONARY

Compiled by
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Of the Federation of Societies for Coatings Technology

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The Paint/Coatings Dictionary has been prepared through the dedicated efforts of many volunteers and was assembled by the staff members of the Federation of Societies for Coatings Technology. The information has been compiled from sources and by persons believed to be reliable; however, the Federation does not assume any responsibility for the use or misuse of the information contained in this dictionary nor guarantee its accuracy or completeness.

Preface.

Abbrevia

Definitio

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CLOUDING/COAL TAR PITCH

- Clouding Development in a clear varnish or lacquer film or liquid of an opalescence or cloudiness caused by the precipitation of insoluble matter or immiscibility of components. ¹⁶¹(BSI)
- Cloud Point Point at which a definite lack of clarity (cloudiness) appears when a liquid is subject to adulteration or when it is mixed with another substance, or the temperature at which a liquid becomes cloudy when it is cooled. 157,161
- Clupanodonic Acid Acid found in many fish oils. The acid possesses an unusually high iodine value—well in excess of 300.63 Also called Docosapentanoic Acid.
- CMC See Carboxymethyl Cellulose. 83,139,155
- Coacervate An aggregate of colloidal droplets held together by electrostatic attractive forces. 139
- Coacervation Reversible collection of emulsoid particles into liquid droplets preceding flocculation. An intermediate stage between sol and gel formation.¹³⁹ cf. Coagulation.
- Coagulation (1) Process whereby a fluid liquid is changed into a thickened, curdled or congealed mass. 42,131,161 (2) Irreversible agglomeration of particles originally dispersed in a rubber latex. 42,131,161 (ASTM)
- Coagulum An agglomerate of particles. 42,161,139 (ASTM)
- Coalescence The formation of a film of resinous or polymeric material when water evaporates from an emulsion or latex system, permitting contact and fusion of adjacent latex particles. (DAC) Action of the joining of particles into a film as the volatile evaporates.
- Coalescent (Coalescing Agent) Solvent with a high bp which, when added to a coating, aids in film formation via temporary plasticization (softening) of the vehicle. 55,83,164
- Coal Tar A dark brown to black cementitious material produced by the destructive distillation of bituminous coal. ⁷⁶(ASTM)
- Coal Tar Colors See Aniline Pigments.41
- Coal Tar-epoxy Coating Coating in which binder or vehicle is a combination of coal tar with epoxy resin.⁷¹
- Coal Tar Hydrocarbons Aromatic hydrocarbons derived from coal tar, including benzene, toluene, xylene, naphtha, etc. 164
- Coal Tar Pitch Distillation residue from coal tar. It varies considerably from a very soft to a very hard product. Fusion points vary from as low as 27°C (80°F) to as high as 232°C (450°F).⁷⁶

Coal Tar

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